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October 8, 2007

Mr. Roy Stewart
Senior Deputy Bureau Chief
Media Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

WRITTEN EX PARTE PRESENTATION IN CONNECTION WITH THE CONSOLIDATED APPLICATION FOR AUTHORITY TO TRANSFER CONTROL IN CONNECTION WITH THE SIRIUS/XM MERGER, AS AMENDED (MB DOCKET NO. 07-57)

Dear Mr. Stewart:

This letter responds to two questions that arose during our meeting on October 3, 2007 with the Commission's XM-Sirius merger transaction team. Both questions arose in the context of our discussion of the Third Supplement Declaration of J. Gregory Sidak ("Third Supplemental Declaration"), filed on October 1, 2007, which demonstrates that XM and Sirius could profitably increase commercial time on satellite radio channels if their proposed merger is approved ("profitability analysis"). We address each question in turn.

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Question 1: How can we be sure that, in attempting to double advertising revenue per customer, XM-Sirius would not increase its advertising rates or convert "dead space" used for self-promotion into commercial time?

The Third Supplemental Declaration analyzed, in part, Sirius CEO Mel Karmazin's stated intention to double the contribution that advertising revenues make to total revenues. Economic analysis indicates that, based on information currently publicly available, the only plausible way for Sirius to achieve such an increase in advertising revenues is to increase the number of minutes of commercials per hour. A question arose whether XM-Sirius could increase advertising revenues by increasing advertising rates, instead of increasing the amount of commercial time imposed on subscribers. Because the supply of radio advertising is highly competitive,[1] we consider it unlikely that even the satellite radio monopoly created

1. The competitiveness of advertising is even recognized by the merger parties. *See* SIRIUS SATELLITE RADIO INC., 2006 ANNUAL REPORT, S.E.C. FORM 10-K, at 11 (filed Mar. 1, 2007) ("The AM/FM radio broadcasting industry is highly competitive with respect to listeners and advertising revenues.").

by a combined XM-Sirius would have sufficient advertising market power to profitably impose a price increase on advertisers. Alternatively, if the combined XM-Sirius in fact achieved newfound market power over advertisers, then the proposed merger would violate the antitrust laws for reasons unrelated to *subscriber* harm. Because we do not represent advertisers, we have not pursued economic theories of harm to advertisers, and we provide no further opinion on the matter. However, even if a combined XM-Sirius could profitably increase its price of advertising, that fact would not prevent XM-Sirius from *also* profitably imposing an increase in the *amount* of commercial time imposed on subscribers.

Similarly, if XM-Sirius increased advertising revenues by converting slots used for self-promotional messages to third-party commercials, that fact would not imply that XM-Sirius would therefore refrain from *also* profitably converting programming time to commercial time. We are skeptical that there are sufficient incentives to convert self-promotional messages into third-party commercials. Economics teaches that there is no free lunch. If XM or Sirius had the incentive to convert minutes devoted to self-promotional messages into third-party commercial time, they would be doing so now.

Moreover, the premise of the question does not impute any economic value to the information of a self-promotional message by XM or Sirius. In addition to the value of second or third receiver sales, churn for SDARS may be low in part because XM and Sirius invest in self-promotional messages that cause subscribers to perceive greater value in their monthly subscriptions. Economic theory dictates that XM and Sirius invest in self-promotional messages until the point that the last dollar invested in self-promotion reduces churn or increases second or third receiver sales by the same amount as the last dollar invested in programming.[2] If XM or Sirius could increase profits by converting another minute of programming into a self-promotional message, then they would have done so. It is unrealistic to assume that XM or Sirius currently leaves money on the table.

Neither XM nor Sirius would currently run self-promotional messages unless the firm expected those messages to make a positive contribution to the firm's profitability—as by increasing demand for subscriptions, by reducing churn, or both. In contrast, an increase in third-party commercials in a competitive market would decrease the demand for SDARS subscriptions. Put differently, an economist would expect the cross elasticity of demand for subscriptions with respect to increases in commercial messages to be negative for third-party commercials but positive for self-promotional messages. SDARS subscribers benefit from self-promotional messages because they are complementary to the consumption of the SDARS content itself. Such messages make subscription to SDARS more valuable, not less, in the eyes of the subscriber. For example, a self-promotional message can inform the listeners about when a particular show will premier or about tonight's upcoming features. In this sense, the self-promotional messages may even be considered a necessary part of the programming content itself.

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2. We assume that the marginal cost of airing an additional minute of programming conditional on having secured the distribution rights for that programming on a given satellite channel is close to zero. Thus, a satellite radio provider would not insert self-promotional messages to avoid programming expenses.

A simply analogy illustrates the economic difference between self-promotional messages and third-party commercials. Consumers derive utility, not disutility, at a movie theatre from watching the trailers for coming attractions. At some point, however, consumers start getting restless and want the featured movie to start. If the trailers lasted an hour, consumers would start to complain about the ticket price (or not show up at the designated start time). So the theatre owner makes the decision about the optimal tradeoff of previews versus wait time for the featured movie. In contrast, the tolerance of moviegoers to on-screen product ads is likely much more limited. Theatre owners understand that trailers stimulate future demand for movie tickets (the analog to stimulating and retaining SDARS subscriptions), but an excessive amount of third-party commercials retards such demand. Theatre owners therefore set the optimal, profit-maximizing combination of the two kinds of messages that precede the feature attraction (the analog to SDARS content).

In summary, we are highly skeptical that XM-Sirius could achieve significantly higher advertising revenues per subscriber either from converting minutes devoted to self-promotional messages to minutes of paid commercials or from increasing advertising rates. To the extent that the increase in commercials came from a displacement of self-promotional messages, SDARS customers would still be harmed, as they likely perceive this time to be part of the program. Even if the magnitude of the harm from more commercials depends on the source of the additional commercial minutes (self-promotional messages or content), the potential for consumer harm is real in either case. To the extent that the increase in advertising revenue came from higher advertising prices, SDARS advertisers would be harmed.

Question 2: How can we be sure that the range of values used in your profitability analysis, particularly those relating to advertising revenue per customer per month, is reasonable?

The monthly average revenue per user (ARPU) owing to advertising, denoted as variable A in the profitability analysis, was allowed to vary from \$0 (bottom left of graph) to \$7.50 (top right of the graph). To confirm that this range of values for A is reasonable, we subsequently analyzed financial data disclosed in Sirius's 2006 Annual Report.[3] Table 1 shows a decomposition of Sirius's monthly ARPU in terms of revenues from subscriptions and revenues from advertisements.

3. SIRIUS ANNUAL REPORT, *supra* note 1, at 11.

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TABLE 1: DECOMPOSITION OF SIRIUS'S MONTHLY AVERAGE REVENUE PER USER (ARPU)

Variable	Formula	Value
Monthly Subscription Revenue (*A*)		$47,950,333
Monthly Advertising Revenue (*B*)		$2,587,000
Combined Monthly Subscriber and Advertising Revenue (*C*)	$A + B$	$50,537,333
Daily Weighted Average Number of Subscribers (*D*)		4,591,693
Monthly ARPU (*E*)	C / D	$11.00
Percent Revenue from Ads, pre-merger (*F*)	A / C	5.1%
Percent Revenue from Ads, post-merger (*G*)		10.0%*
Monthly ARPU from Ads, pre-merger (*H*)	$F \times E$	$0.56
Monthly ARPU from Ads, post-merger (*I*)	$(E - H) / 9$	$1.16

Source: SIRIUS SATELLITE RADIO INC., 2006 ANNUAL REPORT, S.E.C. FORM 10-K, at 39 (filed Mar. 1, 2007).
**Note*: Louis Hau, *Sirius CEO Discusses The Biz*, FORBES.COM, Sept. 17, 2007, available at http://www.forbes.com/business/2007/09/17/sirius-xmradio-advertising-biz-media-cx_lh_0917karmazin.html (quoting Mel Karmazin).

Table 1 shows that, in 2006, Sirius earned roughly $0.56 per customer per month in advertising revenues. Thus, Sirius earned $10.44 (equal to monthly ARPU of $11.00 less $0.56) in subscription revenue per user per month. Because Sirius charges $12.95 per user per month for paying customers, this finding implies that a significant percentage of Sirius customers (roughly 19 percent) pays nothing for satellite radio service.[4]

According to Mr. Karmazin, Sirius expects that post-merger advertising revenue will account for 10 percent of total revenues[5]—that is, the ratio of monthly advertising revenue to total monthly revenue will equal 10 percent. This ratio implies a monthly ARPU related to advertising revenue of $1.16 (equal to monthly ARPU of $11.00 minus $0.56 divided by 9), assuming no growth in subscription revenues. Thus, the range of values for A used in the profitability analysis ($\$0 < A < \$7.50$) contains both the actual value ($0.56) and the projected post-merger value ($1.16), assuming no growth in subscription revenues. Indeed, the high end of that range was chosen to allow monthly ARPU related to advertising to account for 50 percent of total monthly ARPU. To be fair, the parameter space contains some values of A that seem high relative to the current or projected values. But the exercise was intended only to show (contrary to the assertion of the CRA Report) that there *exists* a price for advertising such that a hypothetical monopoly provider of SDARS would be willing to lose one-third of its subscribers as a result of increasing the number of minutes of commercials per hour.

4. If f is the percentage of customers who pay $12.95 per month, then the solution to $\$12.95f + \$0(1 - f) = \$10.44$ is $f = 81$ percent. Thus, the percentage of customers who pay nothing for satellite radio is 19 percent (equal to 100 percent minus 81 percent). It bears emphasis that the pledge by XM and Sirius to keep the price of subscription at $12.95 per month does not provide *any* protection to those customers who would otherwise pay $0. Stated differently, the merged firm could raise prices on 19 percent of their subscribers while honoring the commitment not to raise prices above $12.95. To our knowledge, this potential price increase has, until now, escaped the notice of all the parties commenting on the proposed merger.

5. Louis Hau, *Sirius CEO Discusses The Biz*, FORBES.COM, Sept. 17, 2007, available at http://www.forbes.com/business/2007/09/17/sirius-xmradio-advertising-biz-media-cx_lh_0917karmazin.html.

XM and Sirius would be willing to suffer a loss of revenue caused by a reduction of subscription demand as long as that loss would be more than offset by the increase in ad revenue earned from a diminished subscriber base that will tolerate more commercials.[6] To make matters clear, assume that SDARS customers on average are exposed to one minute of commercials from third parties per hour of listening.[7] Under this assumption, the monthly price for one minute of airtime per hour per customer is \$0.56 (equal to monthly ARPU related to advertising of \$0.56 divided by 1 minute). Holding that price constant, if the combined firm were to increase commercial time from one to three minutes, then monthly ARPU related to advertising (A) would increase from \$0.56 to \$1.68 (equal to \$0.56 per minute × 3 minutes).

SDARS customers generally have a strong distaste for commercials. Nevertheless, a certain percentage of existing SDARS customers would not terminate their subscription in response to the posited increase in commercial minutes per hour (they are the "inframarginal customers"). To solve for the percentage of inframarginal customers, k, such that XM-Sirius would be indifferent between increasing and not increasing commercials from one to three minutes per hour, one solves for k in the following equation:

[1] $[\$1.68 + \$10.44]\, k\, Q = \$11.00\, Q,$

where Q is the number of SDARS subscribers before the increase in the number of minutes of commercials per hour. Canceling terms and rearranging gives

[2] $k = \$11.00 / [\$1.68 + \$10.44] = 90.7$ percent.

Thus, if exactly 90.7 percent of SDARS subscribers would not terminate their subscriptions in response to the posited increase in commercials, then the XM-Sirius would be indifferent between increasing and not increasing commercial time by that extent. Alternatively, if more than 90.7 percent of SDARS subscribers would not terminate their subscriptions in response to the posited increase in commercials, then the increase in commercials would be profitable and consumer welfare would fall. One could use a survey to determine whether 90.7 percent of SDARS customers would endure such an increase in commercials. For example, the survey could ask Sirius customers whether they would cancel or switch their subscription if (1) Sirius increased its commercial time and XM did not or (2) both Sirius and XM increased

6. The monopolist will choose an amount of third-party commercials, t, that maximizes the expression $(P + A[t] - C)\, Q\, [P, t]$, where P is the subscription price for SDARS, A is the advertising revenue per SDARS customer, C is the marginal cost, and Q is the number of subscribers. The partial derivative $\partial Q/\partial P$ is assumed to be negative (demand for SDARS subscriptions falls as the subscription price increases), and $\partial Q/\partial t$ is assumed to be negative (demand for SDARS subscriptions falls as third-party commercial time increases). The first-order condition relating to the profit-maximizing amount of third-party commercial time requires that $\mathrm{d}A/\mathrm{d}t\, Q\, [P, t] = -(P + A[t] - C)\, \partial Q/\partial t$.

7. Sirius states that it offers "69 channels of 100% commercial-free music" out of a total of 130 channels. *See* SIRIUS ANNUAL REPORT, *supra* note 1, at 26. Thus, the average amount of commercial exposure for every hour of listening is equal to $0 \times (1 - d) + s \times d$, where s is the number of commercials minutes per hour on the remaining 61 channels, and d is the percentage of the subscriber's time spent listening to the remaining 61 channels.

their commercial time. The FCC may wish to retain a survey firm to conduct an independent survey of this nature.

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We hope this letter clarifies any issues relating to these questions. If you have any further questions, please do not hesitate to contact us.[8]

Sincerely,

J. Gregory Sidak

Hal J. Singer

cc: Marcia Glauberman
Bill Freedman
Rosalee Chiara
Marilyn Simon
Joel Robinovitz
Dan Bring
Jerry Duvall
Elvis Stumbergs
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Royce Sherlock
Ann Bushmiller
Judith Herman
David Strickland
Jim Bird
Gregory Crawford

8. A copy of this letter will be submitted via ECFS for inclusion in the above-referenced docket pursuant to Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, and Public Notice DA 07-1435 (released Mar. 29, 2007).